

**SUBCHAPTER E : INTERIM STANDARDS FOR OWNERS AND OPERATORS  
OF HAZARDOUS WASTE STORAGE, PROCESSING, OR DISPOSAL FACILITIES**

**§335.111. Purpose, Scope and Applicability.**

(a) The purpose of this subchapter is to establish minimum requirements that define the acceptable management of hazardous waste prior to the issuance or denial of a hazardous waste permit and until certification of final closure or, if the facility is subject to post-closure requirements, until post-closure responsibilities are fulfilled. This subchapter and the standards of 40 code of Federal Regulations §264.552 and §264.553 apply to owners and operators of hazardous waste storage, processing or disposal facilities who have fully complied with the requirements for interim status under the Resource Conservation and Recovery Act, §3005(e).

(b) Environmental Protection Agency (EPA) Hazardous Waste Numbers F020, F021, F022, F023, F026, or F027 must not be managed at facilities subject to regulation under this subchapter, unless:

(1) the wastewater treatment sludge is generated in a surface impoundment as part of the plant's wastewater treatment system;

(2) the waste is stored in tanks or containers;

(3) the waste is stored or processed in waste piles that meet the requirements of 40 Code of Federal Regulations §264.250(c) as well as all other applicable requirements of 40 Code of Federal Regulations Part 265, Subpart L, and §335.120 of this title (relating to Containment for Waste Piles);

(4) the waste is burned in incinerators that are certified pursuant to the standards and procedures in 40 Code of Federal Regulations §265.352; or

(5) the waste is burned in facilities that thermally process the waste in a device other than an incinerator and that are certified pursuant to the standards and procedures in 40 Code of Federal Regulations §265.383.

(c) The requirements of this section apply to owners or operators of all facilities which process, store or dispose of hazardous waste referred to in 40 Code of Federal Regulations, Part 268, and the 40 Code of Federal Regulations, Part 268 standards are considered material conditions or requirements of the Part 265 interim status standards incorporated by reference in §335.112 of this title (relating to Standards).

**§335.112. Standards.**

(a) The following regulations contained in 40 Code of Federal Regulations (CFR) Part 265 (including all appendices to Part 265) (except as otherwise specified herein) are adopted by reference as amended and adopted in the CFR through June 1, 1990, at 55 FedReg 22685 and as further amended as indicated in each paragraph of this section:

(1) Subpart B -- General Facility Standards (as amended through November 18, 1992, at 57 FedReg 54452);

(2) Subpart C -- Preparedness and Prevention;

(3) Subpart D--Contingency Plan and Emergency Procedures, except 40 CFR §265.56(d);

(4) Subpart E -- Manifest System, Recordkeeping and Reporting (as amended through January 29, 1992, at 57 FedReg 3492), except 40 CFR §§265.71, 265.72, 265.75, 265.76, and 265.77;

(5) Subpart F -- Groundwater Monitoring (as amended through December 23, 1991, at 56 FedReg 66369), except 40 CFR §265.90 and §265.94;

(6) Subpart G -- Closure and Post-Closure (as amended through August 18, 1992, at 57 FedReg 37194); except 40 CFR §265.112(d)(3) and (4) and §265.118(e) and (f);

(7) Subpart H -- Financial Requirements (as amended through September 16, 1992, at 57 FedReg 42832); except 40 CFR §265.142(a)(2); provided that the corporate guarantee for closure or for post-closure care, described in 40 CFR §265.143(e)(10) or §265.145(e)(11), respectively, may be provided only by a direct or higher-tier parent corporation of the owner or operator;

(8) Subpart I -- Use and Management of Containers;

(9) Subpart J--Tank Systems (as amended through August 31, 1993, at 58 FedReg 46040);

(10) Subpart K -- Surface Impoundments (as amended through August 18, 1992, at 57 FedReg 37194-37282);

(11) Subpart L -- Waste Piles (as amended through January 29, 1992, at 57 FedReg 3493), except 40 CFR §265.253;

(12) Subpart M--Land Treatment, except 40 CFR §§265.272, 265.279, and 265.280;

(13) Subpart N--Landfills (as amended through July 10, 1992, at 57 FedReg 30658), except 40 CFR §§265.301(f) - 265.301(i), §265.314, and §265.315;

(14) Subpart O -- Incinerators (as amended through February 21, 1991, at 56 FedReg 7208);

(15) Subpart P--Thermal Treatment (as amended through July 17, 1991, at 56 FedReg 32692);

(16) Subpart Q -- Chemical, Physical, and Biological Treatment;

(17) Subpart R -- Underground Injection;

(18) Subpart W -- Drip Pads (as amended through December 24, 1992, at 57 FedReg 61492);

(19) Subpart AA -- Air Emission Standards for Process Vents (as amended through April 26, 1991, at 56 FedReg 19290);

(20) Subpart BB--Air Emission Standards for Equipment Leaks (as amended through April 26, 1991, at 56 FedReg 19290);

(21) Subpart DD--Containment Buildings (as amended through August 18, 1992, at 57 FedReg 37194); and

(22) The following appendices contained in 40 CFR Part 265:

(A) Appendix I--Recordkeeping Instructions (as amended through March 24, 1994, at 59 FedReg 13891);

(B) Appendix III--EPA Interim Primary Drinking Water Standards;

(C) Appendix IV--Tests for Significance; and

(D) Appendix V--Examples of Potentially Incompatible Waste.

(b) The regulations of the United States Environmental Protection Agency (EPA) that are adopted by reference in this section are adopted subject to the following changes:

(1) The term "regional administrator" is changed to the "executive director" of the Texas Natural Resource Conservation Commission or to the commission, consistent with the organization of the commission as set out in the Texas Water Code, Chapter 5, Subchapter B;

(2) The term "treatment" is changed to "processing;"

(3) References to the Resource Conservation and Recovery Act, §3008(h) are changed to the Texas Solid Waste Disposal Act, Texas Health & Safety Code Annotated (Vernon Pamphlet 1993), §361.303 (relating to Corrective Action);

(4) References to 40 CFR §§260.10, 264.90, 264.101, 270.41, or 270.42, are changed to §335.1 of this title (relating to Definitions), §335.156 of this title (relating to Applicability of Groundwater Monitoring and Response), §335.167 of this title (relating to Corrective Action for Solid Waste Management Units), §305.62 of this title (relating to Amendment), or §305.69 of this title (relating to Solid Waste Permit Modification at the Request of the Permittee), respectively;

(5) References to 40 CFR, Part 264, Subpart F, are changed to §335.156 of this title (relating to Applicability of Groundwater Monitoring and Response), §335.157 of this title (relating to Required Programs), §335.158 of this title (relating to Groundwater Protection Standard), §335.159 of this title (relating to Hazardous Constituents), §335.160 of this title (relating to Concentration Limits), §335.161 of this title (relating to Point of Compliance), §335.162 of this title (relating to Compliance Period), §335.163 of this title (relating to General Groundwater Monitoring Requirements), §335.164 of this title (relating to Detection Monitoring Program), §335.165 of this title (relating to Compliance Monitoring Program), §335.166 of this title (relating to Corrective Action Program), and §335.167 of this title (relating to Corrective Action for Solid Waste Management Units);

(6) References to 40 CFR, Part 265, Subpart F, are changed to include §335.116 of this title (relating Applicability of Groundwater Monitoring Requirements) and §335.117 of this title (relating to Recordkeeping and Reporting), in addition to the reference to 40 CFR, Part 265, Subpart F, except §265.90 and §265.94; and

(7) References to the EPA are changed to the Texas Natural Resource Conservation Commission.

(c) A copy of 40 CFR, Part 265 is available for inspection at the library of the Texas Natural Resource Conservation Commission, located on the first floor of Building A at 12100 Park 35 Circle, Austin, Texas.

Adopted October 23, 1996

Effective November 20, 1996

### **§335.113. Reporting of Emergency Situations by Emergency Coordinator.**

If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health or the environment outside the facility, he must report his findings as follows:

(1) If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate local officials decide whether local areas should be evacuated.

(2) He must immediately notify the commission according to procedures set out in the State of Texas Oil and Hazardous Substances Spill Contingency Plan. The report must include:

- (A) name and telephone number of reporter;
- (B) name and address of facility;
- (C) time and place of incident (e.g., release, fire);
- (D) name and quantity of material(s) involved, to the extent known;
- (E) the extent of injuries, if any; and
- (F) the possible hazards to human health, or the environment, outside the facility.

**§335.114. Reporting Requirements.**

(a) The owner or operator must prepare and submit to the executive director by January 25 of each year a single copy of an annual report which covers facility activities during the previous year and contains the following information:

- (1) the EPA identification number, name, and address of the facility;
- (2) the calendar year covered by the report;
- (3) the TWC hazardous waste code and a description and the quantity of each hazardous waste the facility received during the year;
- (4) the method of processing, storage, or disposal for each hazardous waste;
- (5) monitoring data under §335.117(a)(2)(B) and (C), and (b)(2) of this title (relating to Recordkeeping and Reporting) where required;
- (6) the most recent closure cost estimate under the regulations contained in 40 Code of Federal Regulations §265.142, which are in effect as of May 2, 1986, and §335.127 of this title (relating to Cost Estimate for Closure), and, for disposal facilities, the most recent post-closure cost estimate under the regulations contained in 40 Code of Federal Regulations §265.144 which are in effect as of May 2, 1986;
- (7) for generators who treat, store, or dispose of hazardous waste on-site, a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated;

(8) for generators who treat, store, or dispose of hazardous waste on-site, a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for the years prior to 1984; and

(9) the certification signed by the owner or operator of the facility or his authorized representative.

(b) An owner or operator receiving waste from off-site sources shall also file a monthly summary in accordance with §335.15 of this title (relating to Recordkeeping and Reporting Requirements Applicable to Owners or Operators of Storage, Processing or Disposal Facilities). The annual report required by this section for such owners and operators need not contain the information required by subsection (a)(3) and (4) of this section if such information has already been submitted pursuant to §335.15 of this title (relating to Recordkeeping and Reporting Requirements Applicable to Owners or Operators of Storage, Processing or Disposal Facilities).

#### **§335.115. Additional Reports.**

In addition to submitting the annual report and waste reports described in §335.15 of this title (relating to Recordkeeping and Reporting Requirements Applicable to Owners and Operators of Storage, Processing, or Disposal Facilities) and §335.114 of this title (relating to Reporting Requirements), the owner or operator must also report to the executive director:

(1) Releases, fires, and explosions as specified in 40 Code of Federal Regulations §265.56(j);

(2) Groundwater contamination and monitoring data as specified in 40 Code of Federal Regulations, §265.93 and §335.117 of this title (relating to Recordkeeping and Reporting);

(3) Facility closure as specified in 40 Code of Federal Regulations §265.115; and

(4) As otherwise required by §335.112(a)(2) of this title (relating to Standards), which incorporates the requirements of 40 Code of Federal Regulations, Part 265, Subparts AA and BB.

#### **§335.116. Applicability of Groundwater Monitoring Requirements.**

(a) On November 19, 1981, the owner or operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste must implement a groundwater monitoring program capable of determining the facility's impact on the quality of groundwater in the uppermost aquifer underlying the facility except as provided in subsection (c) of this section.

(b) Except as provided in subsections (c) and (d) of this section, the owner or operator must install, operate, and maintain a groundwater monitoring system which meets the requirements of 40 Code of Federal Regulations §265.91, and must comply with 40 Code of Federal Regulations §§265.92 and 265.93 and §335.117 of this title (relating to Recordkeeping and Reporting). This groundwater

monitoring program must be carried out during the active life of the facility, and for disposal facilities during the post-closure care period as well.

(c) All or part of the groundwater monitoring requirements of this subchapter may be waived if the owner or operator can demonstrate that there is a low potential for migration of hazardous waste or hazardous waste constituents from the facility via the uppermost aquifer to water supply wells (domestic, industrial, or agricultural) or to surface water. This demonstration must be in writing and must be kept at the facility. This demonstration must be certified by a qualified geologist or geotechnical engineer and must establish the following:

(1) The potential for migration of hazardous waste constituents from the facility to the uppermost aquifer, by an evaluation of:

(A) A water balance of precipitation, evapotranspiration, runoff, and infiltration; and

(B) Unsaturated zone characteristics (i.e., geologic materials, physical properties, and depth to ground water); and

(2) The potential for hazardous waste or hazardous waste constituents which enter the uppermost aquifer to migrate to a water supply well or surface water, by an evaluation of:

(A) Saturated zone characteristics (i.e., geologic materials, physical properties, and rate of groundwater flow); and

(B) The proximity of the facility to water supply wells or surface water.

(d) If an owner or operator assumes (or knows) that ground- water monitoring of indicator parameters in accordance with 40 Code of Federal Regulations §§265.91 and 265.92 would show statistically significant increases (or decreases in the case of pH) when evaluated under 40 Code of Federal Regulations §265.93(b), he may install, operate and maintain an alternate groundwater monitoring system (other than the one described in 40 Code of Federal Regulations §§265.91 and 265.92). If the owner or operator does decide to use an alternate groundwater monitoring system he must:

(1) Prior to November 19, 1981, submit to the executive director a specific plan certified by a qualified geologist or geotechnical engineer which satisfies the requirements of 40 Code of Federal Regulations §265.93(d)(3), for an alternate groundwater monitoring system;

(2) Prior to November 19, 1981, initiate the determinations specified in 40 Code of Federal Regulations §265.93(d)(4);

(3) Prepare and submit a written report in accordance with 40 Code of Federal Regulations §265.93(d)(5);

(4) Continue to make the determinations specified in 40 Code of Federal Regulations §265.93(d)(4) on a quarterly basis until final closure of the facility; and

(5) Comply with the recordkeeping and reporting requirements in §335.117 of this title (relating to Recordkeeping and Reporting).

(e) The groundwater monitoring requirements of this subchapter may be waived with respect to any surface impoundment that:

(1) Is used to neutralize wastes which are hazardous solely because they exhibit the corrosivity characteristic under 40 Code of Federal Regulations §261.22 or are listed as hazardous wastes in 40 Code of Federal Regulations Part 261, Subpart D, only for this reason, and

(2) Contains no other hazardous wastes, if the owner or operator can demonstrate that there is no potential for migration of hazardous wastes from the impoundment. The demonstrations must establish, based upon consideration of the characteristics of the wastes and the impoundment, that the corrosive wastes will be neutralized to the extent that they no longer meet the corrosivity characteristic before they can migrate out of the impoundment. The demonstration must be in writing and must be certified by a qualified professional.

(f) For owners and operators who have not established background concentrations or values in accordance with 40 Code of Federal Regulations §265.92(c) by November 19, 1982, the executive director may require the implementation of a groundwater assessment plan under 40 Code of Federal Regulations §265.93 whenever he determines that existing data indicates that there is a substantial likelihood that hazardous waste or hazardous constituents from the facility have entered the uppermost aquifer.

#### **§335.117. Recordkeeping and Reporting.**

(a) Unless the groundwater is monitored to satisfy the requirements of 40 Code of Federal Regulations §265.93(d)(4), the owner or operator must:

(1) Keep records of the analyses required in 40 Code of Federal Regulations §265.92(c) and (d), the associated groundwater surface elevations required in 40 Code of Federal Regulations §265.92(e) and the evaluations required in §335.93(b) of this title (relating to Hazardous Waste Discharges) throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and

(2) Report the following groundwater monitoring information to the executive director:

(A) During the first year when initial background concentrations are being established for the facility, concentrations or values of the parameters listed in 40 Code of Federal Regulations §265.92(b)(1) for each groundwater monitoring well within 15 days after completing each quarterly analysis. The owner or operator must separately identify for each monitoring well any



parameters whose concentration or value has been found to exceed the maximum contaminant levels listed in Appendix III of 40 Code of Federal Regulations Part 265.

(B) Quarterly, during the initial year of groundwater monitoring, concentrations or values of the parameters listed in 40 Code of Federal Regulations §265.92(b)(2) and (3) for each groundwater monitoring well. Annually thereafter, concentrations or values of the parameters listed in 40 Code of Federal Regulations §265.92(b)(3) for each groundwater monitoring well, along with the required evaluations for these parameters under 40 Code of Federal Regulations §265.93(b). The owner or operator must separately identify any significant differences from initial background found in the upgradient wells, in accordance with 40 Code of Federal Regulations §265.93(c)(1). During the active life of the facility, this information must be submitted as part of the annual report required under §335.114 of this title (relating to Reporting Requirements). In addition, concentration of the groundwater quality parameters listed in 40 Code of Federal Regulations §265.92(b)(2) shall be reported annually.

(C) As a part of the annual report required under §335.114 of this title (relating to Reporting Requirements): results of the evaluation of groundwater surface elevations under 40 Code of Federal Regulations §265.93(f), and a description of the response to that evaluation where applicable.

(b) If the groundwater is monitored to satisfy the requirements of 40 Code of Federal Regulations §265.93(d)(4), the owner or operator must:

(1) Keep records of the analyses and evaluations specified in the plan which satisfies the requirements of 40 Code of Federal Regulations §265.93(d)(3), throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and

(2) Annually, until final closure of the facility, submit to the executive director a report containing the results of his groundwater quality assessment program which includes, but is not limited to, the calculated (or measured) rate of migration of hazardous waste or hazardous waste constituents in the groundwater during the reporting period. This report must be submitted as part of the annual report required under §335.114 of this title (relating to Reporting Requirements).

(c) The owner or operator shall submit, upon request of the executive director, the following static information for each groundwater monitoring well:

(1) Date of well construction.

(2) Total depth of well (based on mean sea level).

(3) Type of well (ex. trench lysimeter, piezometer, well cluster, multiple screen, pressure vacuum, lysimeter).

(4) Latitude/longitude (based on United States Geological Survey topographic map).

(5) Geologic age of aquifer sampled.

(6) Aquifer name/geologic formation and age.

(d) The owner or operator shall submit, upon request of the executive director, the following information on each sampling event for each groundwater monitoring well sampled:

(1) Date of observation.

(2) Depth to water level (based upon mean sea level).

(3) Sample collection method (i.e. pumped well, bailer, probe, air-lift pump, jetted, peristaltic pump, centrifugal pump or pitcher pump).

(4) Depth to the top of the sample interval which is measured in the number of feet below the land surface datum (LSD).

(5) Depth to the bottom of the sample interval which is measured in feet below the LSD.

**§335.118. Closure Plan; Submission and Approval of Plan.**

(a) Except as provided in this section, the owner or operator must submit his closure plan to the executive director in accordance with the procedures outlined in 40 Code of Federal Regulations (CFR) §265.112. The owner or operator must submit his closure plan to the executive director no later than 15 days after:

(1) termination of interim status (except when a permit is issued to the facility simultaneously with termination of interim status); or

(2) issuance of a judicial decree or compliance order under the Resource Conservation and Recovery Act of 1976, §3008, as amended, or the Solid Waste Disposal Act, Texas Civil Statutes, Article 4477-7, to cease receiving wastes or close.

(b) The executive director will provide the owner or operator and the public, through newspaper notice, the opportunity to submit written comments on the plan and request modifications of the plan within 30 days of the date of the notice. The owner or operator is responsible for the cost of publication. The executive director may, in response to a request or at his own discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning a closure plan. The executive director will give public notice of the hearing at least 30 days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined.) The executive director will approve, modify, or disapprove the plan within 90 days of receipt. If the executive director does not approve the plan, he shall provide the owner or operator with a detailed written statement of reasons for the refusal

and the owner or operator must modify the plan or submit a new plan within 30 days after receiving such written statement. The executive director will approve or modify this plan in writing within 60 days. If the executive director modifies the plan, this modified plan becomes the approved closure plan. The executive director's decision must assure that the approved closure plan is consistent with 40 CFR §§265.111 through 265.115, and the applicable closure requirements contained in this chapter for specific waste management methods, and contained in 40 CFR §264.1102. A copy of this modified plan with a detailed statement of reasons for the modifications must be mailed to the owner or operator.

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Effective February 26, 1996

**§335.119. Post-Closure Plan; Submission and Approval of Plan.**

(a) The owner or operator of a facility with hazardous waste management units subject to the post-closure care requirements in 40 Code of Federal Regulations Part 265, Subpart G, must submit his post-closure plan to the executive director at least 180 days before the date he expects to begin partial or final closure of the first hazardous waste disposal unit. The date when he "expects to begin closure" must be either within 30 days after the date on which the hazardous waste management unit receives the known final volume of hazardous wastes or, if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous waste, no later than one year after the date on which the unit received the most recent volume of hazardous wastes. The owner or operator must submit his post-closure plan to the executive director no later than 15 days after:

(1) termination of interim status (except when a permit is issued to the facility simultaneously with termination of interim status); or

(2) issuance of a judicial decree or compliance order under the Resource Conservation and Recovery Act of 1976, §3008, as amended, or the Solid Waste Disposal Act, Texas Civil Statutes, Article 4477-7, to cease receiving wastes or close.

(b) The executive director will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the post-closure plan and request modifications of the plan including modification of the 30-year post-closure period required in 40 Code of Federal Regulations §265.117 within 30 days of the date of the notice. The owner or operator is responsible for the cost of publication. The executive director may, in response to a request or at his own discretion, hold a public hearing whenever a hearing might clarify one or more issues concerning the post-closure plan. The executive director will give the public notice of the hearing at least 30 days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for written public comments, and the two notices may be combined.) The executive director will approve, modify, or disapprove the plan within 90 days of its receipt. If the executive director does not approve the plan, he shall provide the owner or operator with a detailed written statement of reasons for the refusal and the owner or operator must modify the plan or submit a new plan for approval within 30 days after receiving such written statement. The executive director will approve or modify this plan in writing within 60 days. If the executive director modifies the plan, this modified plan becomes the approved post-closure plan. The executive director must ensure that the

approved post-closure plan is consistent with 40 Code of Federal Regulations §§265.117-265.120. A copy of this modified plan with a detailed statement of reasons for the modifications must be mailed to the owner or operator. If an owner or operator plans to begin closure before November 19, 1981, he must submit the post-closure plan by May 19, 1981.

**§335.120. Containment for Waste Piles.**

If leachate or run-off from a pile is a hazardous waste, then either:

(1) The pile must be placed on an impermeable base that is compatible with the waste under the conditions of treatment or storage; the owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the pile during peak discharge from at least a 100-year storm; the owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 100-year storm; and collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously to maintain design capacity of the system;

(2) The pile is managed such that:

(A) The pile must be protected from precipitation and run-on by some other means; and

(B) No liquids or wastes containing free liquids may be placed in the pile.

**§335.121. General Operating Requirements (Land Treatment Facilities).**

(a) Hazardous waste must not be placed in or on a land treatment facility unless the waste can be made less hazardous or non-hazardous by degradation, transformation, or immobilization processes occurring in or on the soil.

(b) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portions of the facility during peak discharge from at least a 100-year storm.

(c) The owner or operator must design, construct, operate, and maintain a run-off management system capable of collecting and controlling a water volume at least equivalent to a 24-hour, 100-year storm.

(d) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(e) If the treatment zone contains particulate matter which may be subject to wind dispersal, the owner or operator must manage the unit to control wind dispersal.

**§335.122. Recordkeeping.**

The owner of a land treatment facility must keep records of the application dates, application rates, quantities, and location of each hazardous waste placed in the facility, in the operating record required in 40 Code of Federal Regulations §265.73.

**§335.123. Closure and Post-Closure (Land Treatment Facilities).**

(a) In the closure plan under 40 Code of Federal Regulations §265.112 and the post-closure plan under 40 Code of Federal Regulations §265.118, the owner or operator must address the following objectives and indicate how they will be achieved:

(1) Control of the migration of hazardous waste and hazardous waste constituents from the treated area into the groundwater;

(2) Control of the release of contaminated run-off from the facility into surface water;

(3) Control of the release of airborne particulate contaminants caused by wind erosion;  
and

(4) Compliance with 40 Code of Federal Regulations §265.276 concerning the growth of food-chain crops.

(b) The owner or operator must consider at least the following factors addressing the closure and post-closure care objectives of subsection (a) of this section:

(1) Type and amount of hazardous waste and hazardous waste constituents applied to the land treatment facility;

(2) The mobility and the expected rate of migration of the hazardous waste and hazardous waste constituents;

(3) Site location, topography, and surrounding land use, with respect to the potential effects of pollutant migration (e.g., proximity to groundwater, surface water and drinking water sources);

(4) Climate, including amount, frequency, and pH or precipitation;

(5) Geological and soil profiles and surface and subsurface hydrology of the site, and soil characteristics, including cation exchange capacity, total organic carbon, and pH;

(6) Unsaturated zone monitoring information obtained under 40 Code of Federal Regulations §265.278; and

(7) Type, concentration, and depth of migration of hazardous waste constituents in the soil as compared to their background concentrations.

(c) The owner or operator must consider at least the following methods in addressing the closure and post-closure care objectives of subsection (a) of this section:

(1) Removal of contaminated soils;

(2) Placement of a final cover, considering:

(A) Functions of the cover (e.g., infiltration control, erosion and run-off control, and wind erosion control), and

(B) Characteristics of the cover, including material, final surface contours, thickness, porosity and permeability, slope, length of run of slope, and type of vegetation on the cover;

(3) Collection and treatment run-off;

(4) Diversion structures to prevent surface water run-on from entering the treated area;  
and

(5) Monitoring of soil, soil-pore water, and groundwater.

(d) In addition to the requirements of 40 Code of Federal Regulations Part 265; Subpart G, relating to closure and post-closure, §335.118 of this title (relating to Closure Plan; Submission and Approval of Plan) and §335.119 of this title (relating to Post-Closure Plan; Submission and Approval Plan), during the closure period the owner or operator of a land treatment facility must:

(1) Continue unsaturated zone monitoring in a manner and frequency specified in the closure plan, except that soil pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone;

(2) Maintain the run-on control system required under §335.121(b) of this title (relating to General Operating Requirements (Land Treatment Facilities));

(3) Maintain the run-off management system required under §335.121(c) of this title (relating to General Operating Requirements (Land Treatment Facilities)); and

(4) Control wind dispersal of particulate matter which may be subject to wind dispersal.

(e) For the purpose of complying with 40 Code of Federal Regulations §265.115 (relating to Certification of Closure) when closure is completed the owner or operator may submit to the executive director certification both by the owner or operator and by an independent qualified soil scientist, in lieu of an independent registered professional engineer, that the facility has been closed in accordance with the specifications in the approved closure plan.

(f) In addition to the requirements of 40 Code of Federal Regulations §265.117 (relating to Post-Closure Care and Use of Property), during the post-closure care period the owner or operator of a land treatment unit must:

(1) Continue soil-core monitoring by collecting and analyzing samples in a manner and frequency specified in the post-closure plan;

(2) Restrict access to the unit as appropriate for its post-closure use;

(3) Assure that growth of food chain crops complies with 40 Code of Federal Regulations §265.276 (relating to Food Chain Crops); and

(4) Control wind dispersal of hazardous waste.

#### **§335.124. General Operating Requirements (Landfills).**

(a) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 100-year storm.

(b) The owner or operator must design, construct, operate and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 100-year storm.

(c) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(d) The owner or operator of a landfill containing hazardous waste which is subject to dispersal by wind must cover or otherwise manage the landfill so that wind dispersal of the hazardous waste is controlled.

(e) As required by 40 Code of Federal Regulations (CFR) §265.13, the waste analysis plan must include analyses needed to comply with 40 CFR §265.312 (relating to Special Requirements for Ignitable or Reactive Waste) and 40 CFR §265.313 (relating to Special Requirements for Incompatible Wastes). The waste analysis plan must also include analyses needed to comply with §335.125 of this title (relating to Special Requirements for Bulk and Containerized Waste). As required by 40 CFR §265.73 (relating to Operating Record), the owner or operator must place the results of these analyses in the operating record of the facility.

Adopted January 30, 1996

Effective February 26, 1996

**§335.125. Special Requirements for Bulk and Containerized Waste.**

(a) Bulk or non-containerized liquid waste or waste containing free liquids may be placed in a landfill prior to May 8, 1985, only if prior to disposal, the liquid waste or waste containing free liquids is processed or stabilized, chemically or physically (e.g., by mixing with a sorbent solid), so that free liquids are no longer present.

(b) Effective May 8, 1985, the placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited.

(c) A container holding liquid waste or waste containing free liquids must not be placed in a landfill unless:

(1) the container is designed to hold liquids or free liquids for use other than storage, such as a capacitor or battery;

(2) the container is very small, such as an ampule; or

(3) the container is disposed of in accordance with 40 Code of Federal Regulations §265.316.

(d) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in 40 Code of Federal Regulations §260.11 and in §335.31 of this title (relating to Incorporation of References).

(e) The date for compliance with subsection(a) of this section is November 19, 1981. The date for compliance with subsection (c) of this section is March 22, 1982.

(f) Effective November 8, 1985, the placement of any liquid which is not a hazardous waste in a landfill is prohibited unless the owner or operator of such landfill demonstrates to the executive director, or the executive director determines, that:

(1) The only reasonably available alternative to the placement in such landfill is placement in a landfill or unlined surface impoundment, whether or not permitted or operating under interim status, which contains, or may reasonably be anticipated to contain, hazardous waste; and

(2) Placement in such owner or operator's landfill will not present a risk of contamination of any underground source of drinking water (as that term is defined in §331.2 of this title (relating to Definitions)).



Adopted October 23, 1996

Effective November 20, 1996

**§335.126. Special Requirements for Containers.**

(a) Containers must be crushed flat, shredded, or similarly reduced in volume to the maximum extent practicable before burial in a landfill.

(b) Owners or operators must be in compliance with this section by November 19, 1981.

**§335.127. Cost Estimate for Closure.**

In addition to the requirements of 40 Code of Federal Regulations §265.142 (excluding 40 Code of Federal Regulations §265.142(a)(2)), the closure cost estimate must be based on the costs to the owner or operator of hiring a third party to close the facility. A third party is a party who is neither a parent nor a subsidiary of the owner or operator (see the definition of parent corporation in 40 Code of Federal Regulations §265.141(d)). Notwithstanding other closure costs, such estimate must also include the costs associated with third party removal, shipment off-site, and processing or disposal off-site of the following wastes to an authorized storage, processing or disposal facility:

(1) maximum inventory of wastes in storage and/or processing units, including but not limited to, storage surface impoundments, waste piles, tanks and containers;

(2) wastes generated as a result of closure activities (e.g. decontamination, removal of liquids from surface impoundments or waste piles);

(3) contaminated stormwater; or

(4) leachate.